IN THE CLAIMS:

23. (Amended) A polyurethane solution containing alkoxysilane structural units, wherein the polyurethane is the reaction product, in organic solution, of

a) at least one at least difunctional polyol having a molecular weight of 500 to 16,000,

b) at least one at least difunctional polyisocyanate having a molecular weight of 140 to 1,500,

c) at least one low molecular weight at least difunctional alcohol and/or amine having a molecular weight of 32 to 500,

d) at least one compound containing at least one alkoxysilane group and an isocyanate-reactive group and

e) optionally a monofunctional compound containing an amino, alcohol or oxime group, other than a compound falling within the scope of component d),

wherein the equivalents of component d) are at least 50% of the total equivalents of components d) and e) and wherein the number of terminal alkoxysilne groups must be at least 50 wt.% of all the incorporated alkoxysilane groups.

24. (Amended) The polyurethane solution of Claim 23 wherein the polyurethane is reaction product, in organic solution, of

a) 40 to 92 wt.% of at least one at least difunctional polyol having a molecular weight of 500 to 16,000,

b) 7 to 50 wt.% of at least one at least difunctional polyisocyanate having a molecular weight of 140 to 1,500,

c) 0.5 to 20 wt.% of at least one low molecular weight at least difunctional alcohol and/or amine having a molecular weight of 32 to 500,

d) 0.1 to 5 wt.% of at least one compound containing at least one alkoxysilane group and an isocyanate-reactive group and

e) optionally a monofunctional compound containing an amino, alcohol or oxime group, other than a compound falling within the scope of component d),

wherein the percentages are based on weight of the polyurethane and the equivalents of component d) are at least 75% of the total equivalents of components d) and e).

25. (Amended) The polyurethane solution of Claim 23 wherein the polyurethane is the reaction product, in organic solution, of

a) 47 to 88 wt.% of at least one at least difunctional polyol having a molecular weight of 500 to 16,000,

b) 10 to 40 wt.% of at least one at least difunctional polyisocyanate having a molecular weight of 140 to 1,500,

c) 0.8 to 17 wt.% of at least one low molecular weight at least difunctional alcohol and/or amine having a molecular weight of 32 to 500,

d) 0.2 to 3.0 wt.% of a compound containing an alkoxysilane group and an isocyanate-reactive group and

e) 0-0.5 wt.% of a monofunctional compound containing an amino, alcohol or oxime group, other than a compound falling within the scope of component d),

wherein the percentages are based on weight of the polyurethane and the equivalents of component d) are at least 95% of the total equivalents of components d) and e).

39. (Amended) A process for preparing the polyurethane solution of Claim 23 which comprises

a) preparing an isocyanate-functional polyurethane in a one- or two-stage reaction from at least one polyol a), at least one difunctional polyisocyanate b), and at least one low molecular weight component c),

b) subsequently reacting the product of step a) with at least one compound d) containing an alkoxysilane group and an isocyanate-reactive group and optionally a monofunctional component e) to obtain a polyurethane with alkoxysilane structural units which no longer contains free isocyanate groups, and

c) adding an organic solvent either before, during or after step a) in an amount such that the resulting polyurethane solution with alkoxysilane end groups has a solids content of 9 to 65 wt.%.

40. (Amended) The process of Claim 39 which comprises

a) reacting components a), b) and optionally c) in a one-stage reaction, optionally in the presence of suitable solvents, to obtain an isocyanate-functional polyurethane,

b) achieving the desired viscosity and molecular weight by optionally adding a) an additional amount of polyisocyanate b) and/or low molecular weight difunctional component c), and

c) chain-stopping the reaction by adding a monoamino-functional compound d) containing an alkoxysilane group.